

REMARKS/ARGUMENTS

Claims 1-37 remain in this application. Claims 1, 2, 11, 12, 19 and 21 were amended. Claims 38-61 were cancelled in a previous response.

Independent claims 1, 11 and 19 were amended to more clearly describe the claimed invention by adding the limitation “the bioabsorbable body does not expand when exposed to the fluid.” The added limitation is supported by the drawings. With reference to Figures 3D and 7F reproduced below, the pending claims are directed towards a device having a body 412 for sealing a passageway 92 through tissue. The body 412 has a proximal end 420, a distal end 422 and a lumen 424 that extends between the proximal end 420 and the distal end 422. A sealing member 432 is shown in the expanded state sealing the lumen 424 from fluid flow therethrough. Figures 3D and 7F shown above illustrate the body exposed to the fluid. The sealing member has expanded across the lumen to stop the flow of fluid through the lumen but the body remains in its original shape.

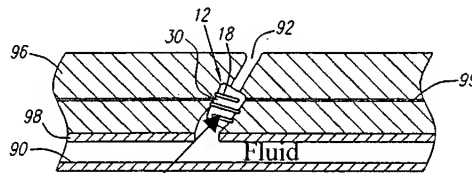


FIG. 3D

Body does not expand
when exposed to fluid

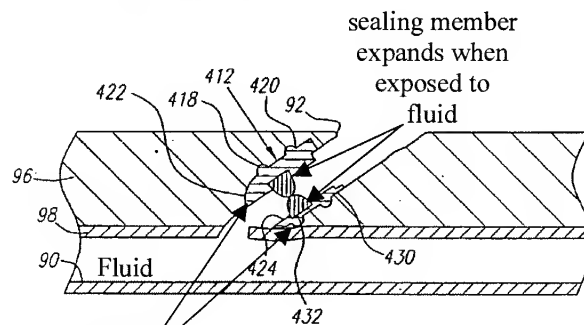


FIG. 7F

body does not expand
when exposed to fluid

This limitation is also supported by the specification. The specification describes the body as being made of a substantially rigid or flexible material that is bioabsorbable. The body is rotated within the passage with the helical thread engaging the tissue to move the body into the passage. The body moves through tissue until in the distal tip enters the blood vessel. The body can then be counter rotated to move the body away from the blood vessel. According to the specification, after the body is inserted into the passage, the body does not expand when exposed to the fluid. When properly positioned, the body is left in the passage and the sealing member expands across the lumen. (Application, paragraphs 0036, 0040, 0058, 0065, 0066, Figs. 1A, 2, 3B-3D, 7E and 7F.) This rotation would not be possible if the body expanded when exposed to fluids.

Claims 2, 12 and 21 depend from claims 1, 11 and 19 respectively. Claims 2, 12 and 21 were amended to correct the antecedent basis errors for the term, "fluid flow."

The Examiner rejected claims 1-25, 27-29, 31-35 and 37 under 35 U.S.C. §103(a) as being unpatentable over Rudnick, U.S. Patent No. 5,320,639. The applicant submits that Rudnick only teaches a plug that expands against a blood vessel to seal a puncture when exposed to blood. There is not disclosure in Rudnick of a plug that does not expand when exposed to fluids. With reference to Figure 3 of Rudnick reproduced below, the plug 18 is protected from moisture by the housing 20 which surrounds the plug until it is fully inserted into the passageway.

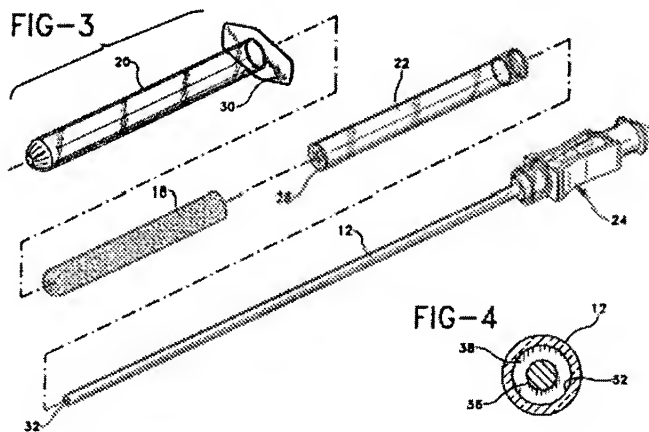
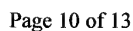
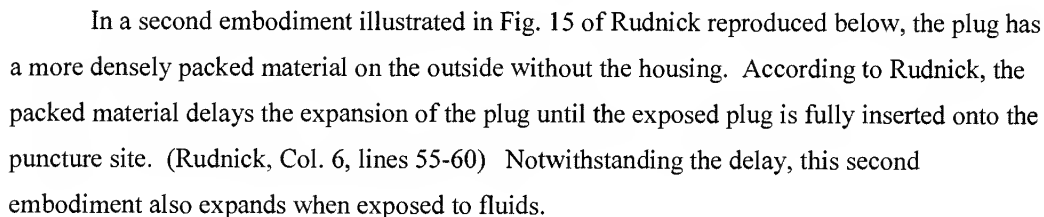


FIG-11

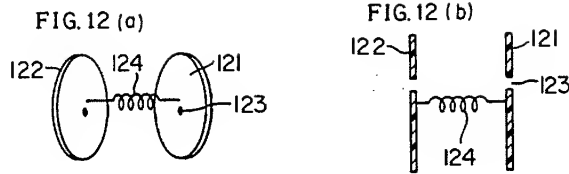


The applicant submits that the expansion of the plug is a critical feature of the Rudnick device because the expanded plug absorbs the blood around the outer area of the blood vessel. Rudnick specifies that if the plug is placed in the channel leading to the blood vessel but away from the puncture, the blood vessel may continue to bleed into the tissue surrounding the blood vessel. (Rudnick, Col. 5, lines 11-16.) Because expansion against the blood vessel is a critical aspect of the vessel sealing mechanism, the applicant submits that Rudnick does not disclose a plug body that does not expand when exposed to fluids.

Since all claim limitations are not disclosed or suggested by Rudnick, the applicant submits that claims 1, 11 and 19 are not invalid under 35 U.S.C. §103(a) as being unpatentable over Rudnick. Claims 2-10 depend from claim 1, claims 12 and 14-18 depend from claim 11 and claims 20-25, 27-29, 31-35 and 37 depend from claim 19. For the same reasons discussed above with respect to claims 1, 11 and 19, the applicant submits that claims 20-25, 27-29, 31-35 and 37 are not invalid under 35 U.S.C. §103(a) as being unpatentable over Rudnick.

The Examiner rejected claim 13 under 35 U.S.C. §103(a) as being unpatentable over Rudnick in view of Kamiya, US Patent No. 5,192,301. The Examiner argues that it would have been obvious to provide a sealing member in the shape of a coil as taught by Kamiya “in order to recover to its original shorter length after insertion into the passage of tissue so that it may hold and close the plug tightly from both sides of the wall of the body part.” The applicant respectfully disagrees with the Examiner’s interpretation of Kamiya and the combination of Rudnick and Kamiya in the manner described in the Office Action.

The Examiner cited the coil 124 illustrated in Figures 12a and 12b of Kamiya, reproduced below, as a sealing member. Figures 12a and 12b illustrate a closing plug that has flanges 121, 122. The closing plug is placed through a hole in a wall so that the flanges 121, 122 are on opposite sides of the wall. The coil 124 functions to hold the flanges 121, 122 against the hole. (Kamiya, Col. 6, lines 27-38.) Thus, the flanges 121, 122 function as the seal and the coil 124 holds the flanges 121, 122 against the wall.



Claim 13 requires that the coil sealing member be movable to the tapered portion of the lumen of the bioabsorbable body for sealing the lumen. The coil 124 disclosed by Kamiya is not a sealing member but a mechanism used to hold the flanges 121, 122 against a somatic wall of a patient. (Kamiya, Col. 1, lines 11-13.) While the coil 124 disclosed by Kamiya can change shape, it does not seal a lumen in the body. A cross section of the plug 18 disclosed by Rudnick showing the central lumen is illustrated in Fig. 11 above. The applicant respectfully submits that the insertion of the coil 124 disclosed by Kamiya would not function to seal the lumen of the body disclosed by Rudnick as required by claim 13. For these reasons and the reasons discussed above regarding claim 11, the applicant submits that claim 13 is not invalid under 35 U.S.C. §103(a) as being unpatentable over Rudnick in view of Kamiya.

Claims 26, 30 and 36 depend from claim 19. In the Office Action, the Examiner states that these claims would be allowable if rewritten in independent form. (Office Action, page 6.) The applicant thanks the Examiner for acknowledging this allowable subject matter and submits that these claims are allowable in dependent form for the same reasons discussed above with respect to claim 19.


Application No. 10/734,929
Amendment dated December 6, 2007
Reply to Office Action dated September 11, 2007

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. The Examiner is encouraged to call the undersigned collect at (415) 705-6377 if there are any outstanding issues or questions which can be resolved to allow this application to be passed to issue.

Respectfully submitted,

DERGOSITS & NOAH LLP

Dated: December 6, 2007

By: 

Todd A. Noah
Reg. No. 35,626

Attorneys for Applicant
Four Embarcadero Center, Suite 1450
San Francisco, California 94111
(415) 705-6377